19 Sheet Pomm PTD-1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. SERIAL NO. ENZ-1 (Cont.) Div II °130,097 Information Disclosure Statement David C. Ward, let al. APPLICANT Filed By Applicant (Use several theels if necessary) FILING DATE Sedrigo 12/7/87 v80,U.S. PATENT DOCUMENTS EXAMINER DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE INITIAL 3 | 3 | 2 | 8 | 3 | 8 | 9 | 6/27/67 Shimizu et al. 260 211 5 **-87/227/67** Hanze AB 3 3 3 7 5 3 0 260 211 5 AC -8/29/67 3 3 8 8 8 8 2 Wechter-260 211,5 3 8 0 4 8 2 6 4/10/74 Schelt-et-al-260 211,5R AE. 8 9.3.9.9.8 -7/-3/-7-5-\_John\_A.\_Secrist III, et al. 260 211.5R AF 9. **-1-**-5-9-5-8-1-0*/-*28*/-*7-5 -Shuman-et-al. 260 2111.5R AG 1-1-7-15-8 3 -11/4/75 -Meyer et al. 260 211.5R .AH 9 6 0 8 4 0 6/1/76-John A. Secrist III et al. 260 21/1 5R 3 9 6 8 1 0 1 7/6/76 Christensen et al. 2/11 260 5R 'A'J 0 0 8 3 6 3 2/15/77 Luciano Re et al. 28 536 3 0 8 8 7726777 Robins et al. 27 536 FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER TRANSLATION DATE COUNTRY SUBCLASS YES AL. **-1|-8|-4|-1-|-9|-1-1-/-4-/**76 German Offenlegungsschrift 2 Х 8 5 1 1 11/4/76 AM ï 6 German Offenlegungsschrift X AN 0 5131 \*7'|\*5| ~7**7**17/82 /з German Offenlegungsschrift X AO 9 0 8 10/31/79 United Kingdom Pat. Appln. ·0 2/6/80 AP United-Kingdom Pat. Appln. Other Documents (Including Author, Title, Date, Pertinent Fages, Etc.) AR

J. G. J. Bauman et al., "A New Method for Fluorescence Microscopical Localization of Specific DNA Sequences by In Situ Hybridization of Fluorochrome-Labelled RNA", Exp. Cell Res., 128, pp. 485 90 (1980) ["Bauman I"]

J. G. J. Bauman et al., "Rapid and High Resolution Detection of in situ Hybridisation to/Polytene Chromosomes Using Fluorochrome-Labeled RNA, "/Chromosoma (Berl.) 84, pp. 1-18 (1981) ["Bauman I/I"]

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